

FORM PTO-1390 (Modified)  
(REV 11-98)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371

RCA 89215

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

09/889110

INTERNATIONAL APPLICATION NO.

PCT/EP00/01131

INTERNATIONAL FILING DATE

11 February 2000 (11.02.00)

PRIORITY DATE CLAIMED

11 February 1999 (11.02.99)

TITLE OF INVENTION

ELECTRODE STRUCTURE FOR ELECTRON GUN

APPLICANT(S) FOR DO/EO/US

Arnaud Farizon and Philippe Arnaud

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
  - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☒ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
- ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
- ☒ A copy of the International Search Report (PCT/ISA/210). attached to Item 13
- ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
- ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
- ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
- ☒ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
- ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 13 to 20 below concern document(s) or information included:

13. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98. with references attached
14. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☒ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☐ A change of power of attorney and/or address letter.
19. ☒ Certificate of Mailing by Express Mail 20.

20. ☒ Other form or information:Return postcard receipt  
CERTIFICATE OF MAILING UNDER 37 CFR 1.10

EL685391487US

July 11, 2001

"Express Mail" mailing no.

Date of Deposit

I hereby certify that this application is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

David A Fornarotto  
Typed or printed name of person  
mailing application

David A Fornarotto  
Signature of person mailing  
application

U.S. APPLICATION NO. 09/889116

INTERNATIONAL APPLICATION NO.  
PCT/EP00/01131

ATTORNEY'S DOCKET NUMBER  
RCA 89215

21. The following fees are submitted:

**BASIC NATIONAL FEE ( 37 CFR 1.492 (a) (1) - (5) ) :**

- ☐ Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO ..... \$1000.00
- ☒ International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO ..... \$860.00
- ☐ International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... \$710.00
- ☐ International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) ..... \$690.00
- ☐ International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfy provisions of PCT Article 33(1)-(4) ..... \$1000.00

**ENTER APPROPRIATE BASIC FEE AMOUNT =**

**CALCULATIONS PTO USE ONLY**

860.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE
Total claims	3 -20 =	0	x \$18.00
Independent claims	1 - 3 =	0	x \$80.00

Multiple Dependent Claims (check if applicable). ☐

**TOTAL OF ABOVE CALCULATIONS = 860.00**

Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28) (check if applicable). ☐

**SUBTOTAL = 860.00**

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (f)).

**TOTAL NATIONAL FEE = 860.00**

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable). ☐

40.00

**TOTAL FEES ENCLOSED = 900.00**

Amount to be refunded	\$
charged	\$ 900.00

☐ A check in the amount of \_\_\_\_\_ to cover the above fees is enclosed.

☒ Please charge my Deposit Account No. 07-0832 in the amount of \$900.00 to cover the above fees.  
A duplicate copy of this sheet is enclosed.

☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 07-0832 A duplicate copy of this sheet is enclosed.

**NOTE:** Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

**SEND ALL CORRESPONDENCE TO:**

Mr. Joseph S. Tripoli  
THOMSON multimedia Licensing Inc.  
Patent Department  
PO Box 5312  
Princeton, New Jersey 08540

*Dennis H. Irlbeck*  
SIGNATURE

Dennis H. Irlbeck

NAME

26,372

REGISTRATION NUMBER

July 11, 2001

DATE

60:8 NY 81 706 10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Arnaud Farizon and Philippe Arnaud  
Filed : Herewith  
For : ELECTRODE STRUCTURE FOR ELECTRON GUN

PRELIMINARY AMENDMENT

Hon. Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Sir:

In the US national phase application of PCT/EP00/01131 filed herewith, please enter the following amendments:

IN THE SPECIFICATION:

Please amend the specification as follows:

On Page 1, after the title, please insert the following paragraph:

-- This application claims the benefit of French patent application serial no. 9901628 filed February 11, 1999, which is hereby incorporated herein by reference, and which claims the benefit under 35 U.S.C. § 365 of International Application PCT/EP00/01131, filed February 11, 2000, which was published in accordance with PCT Article 21(2) on August 17, 2000 in English.--

IN THE CLAIMS:

Please amend the claims (which are the annexes of the International Preliminary Examination Report) as follows. A marked up version of the amended claims is attached herewith.

1. An electron gun comprising at least one cathode for emitting an electron beam, a dish-shaped control electrode G1 comprising a substantially planar part provided with at least one aperture for the passage of the electron beam emanating from the cathode and a skirt at least partially surrounding the cathode, and means for supporting the cathode so as to keep the latter at a specified distance from

the electrode G1, wherein the control electrode G1 comprises at least three separate metal components:

a substantially planar component drilled with apertures which are intended to face each cathode,

at least two metal components forming the lateral skirt at least partially surrounding the cathode, the ends of the two components overlap at least partially and are secured to one another at points of the overlap.

2. The electron gun according to claim 1, wherein the cathode supports are secured to the lateral skirt.

3. A cathode-ray tube comprising an electron gun in accordance with Claim 1.

#### IN THE ABSTRACT:

Please add the following Abstract.

-- An electron gun for a cathode-ray tube comprises a dish-shaped control electrode. The electrode is made from three separate components: a substantially planar component drilled with apertures so as to allow the passage of electron beams, and two identically shaped components intended to make a skirt serving as a support for the cathode modules. The components are welded together. This structure allows the construction of a control electrode serving as support for cathode modules by virtue of inexpensive components which are simple to manufacture.--

#### REMARKS

The specification has been amended to include a reference to the priority applications.

The claims have been amended to remove reference indicia and to remove multiple dependencies

To meet the requirements of the United States, the Abstract (as originally filed in the PCT application) is added.

No fee is believed to have been incurred by virtue of this amendment.  
However if a fee is incurred on the basis of this amendment, please charge such fee  
against deposit account 07-0832

Respectfully submitted,  
Arnaud Farizon  
Philippe Arnaud



Dennis H. Irlbeck  
Attorney for Applicant  
Registration No. 26,372  
609/734-9763

THOMSON multimedia Licensing Inc.  
Patent Operation  
PO Box 5312  
Princeton, NJ 08543-5312

July 11, 2001

MARKED UP VERSION OF THE AMENDED CLAIMS

1. (AMENDED) An electron gun comprising at least one cathode [(50)] for emitting an electron beam, a dish-shaped control electrode G1 comprising a substantially planar part [(61)] provided with at least one aperture [(43',44')] for the passage of the electron beam emanating from the cathode and a skirt at least partially surrounding the cathode, and means for supporting the cathode so as to keep the latter at a specified distance from the electrode G1, wherein the control electrode G1 [(25')] comprises at least three separate metal components:

a substantially planar component [(61)] drilled with apertures [(43',44')] which are intended to face each cathode [(21,22)],

at least two metal components [(60,66)] forming the lateral skirt at least partially surrounding the cathode, the ends of the two components [(60,66)] overlap at least partially and are secured to one another at points [(67)] of the overlap.

2. (AMENDED) The electron gun according to claim 1 [or 2], wherein the cathode supports are secured to the lateral skirt [(60,66)].

3. (AMENDED) A cathode-ray tube comprising an electron gun in accordance with [any one of the preceding claims] Claim 1.

ELECTRODE STRUCTURE FOR ELECTRON GUN

This invention relates to an electron gun for a cathode-ray tube and, more particularly, to the manner of making certain electrodes which extend along the path of the electron beams in the direction of the screen of the tube.

5 In an electron gun for a cathode-ray tube, a few components are of elongate shape in the direction of the beam or beams generated by one or more cathodes. The objective of these elongate shapes is to form the beams or to make them converge towards the screen of the tube. The first electrode of the gun, also referred to as the control electrode, may also be of elongate shape and surround  
10 the cathode or cathodes more or less totally. In this case, the elongate shape allows confinement of the energy dissipated by the cathode filaments so as to render the latter emissive and thereby increase the energy yield of the assembly.

The control electrode G1, drilled with one or more apertures for the passage of the electron beams, may be made by deep drawing, in such a way as to make the  
15 electrode surface and its lateral skirt from one planar component. Such an electrode G1 is, for example, illustrated by the Dutch patent application 8103395. It is also possible to make the electrode G1 by welding, onto a planar part drilled with apertures, a lateral skirt obtained by bending. These methods have shown their limitations, inasmuch as the subsequent adjusting of the cathode modules  
20 can only be done readily if the shape and final dimensions of the electrode G1 are perfectly controlled and in accordance with those specified. The methods of the prior art do not enable the shape of the electrode G1 to be controlled with sufficient accuracy.

The electron gun according to the present invention affords a solution to this  
25 problem. It comprises at least one cathode for emitting an electron beam, a dish-shaped control electrode G1, comprising a substantially planar part provided with at least one aperture for the passage of the electron beam emanating from the cathode and a skirt at least partially surrounding the cathode, and means for supporting the cathode so as to keep the latter at a specified distance from the  
30 electrode, characterized in that the control electrode G1 comprises at least three separate metal components:

- a substantially planar component drilled with apertures which are intended to face each cathode,

- at least two metal components forming the lateral skirt at least partially surrounding the cathode, the two components being secured to one another as well as to the planar part, for example, by welding.

Moreover, the invention has the advantage of allowing the modification of any electron gun comprising a planar control electrode G1 by the addition of a structure made from two components so as to form a lateral skirt for confinements which did not exist in the starting electrode G1, and doing so without modifying the shape of the initial electrode.

The invention will be better understood with the aid of the description and of the drawings, in which:

- Figure 1 is a cathode-ray tube according to the invention;

- Figure 2 shows an exploded view of the rear part of a tube incorporating a gun according to the prior art;

- Figure 3 illustrates a mode of making a dish-shaped electrode G1 by deep-drawing according to the prior art;

- Figure 4 is a section through the bottom part of the electron gun according to the prior art;

- Figure 5 is an exploded view of an embodiment of the invention including the electrode G1 and the cathode supports; and

- Figure 6 shows in perspective an electrode G1 according to the invention.

As illustrated by Figure 1, a color cathode-ray tube 1 comprises a front face 2 onto which is deposited a screen 10 comprising networks of luminescent materials intended for reproducing a colored image under the impact of electron beams 6, 7 and 8 generated by an electron gun 5. A color selection mask 11, drilled with holes 12, is interposed between the gun and the front face so that each electron beam illuminates only the parts corresponding thereto on the screen. A system 13 for deflecting the electron beams is arranged on the neck 4 of the tube so that the beams 6, 7 and 8 sweep the whole of the screen 10.

Figure 2 shows an electron gun according to the prior art in greater detail.

This gun 5 comprises three cathodes, a central cathode 22 and two lateral cathodes 21, a dish-shaped electrode G1 25, and a succession of electrodes 26, 27, 28, etc.

The electrodes are drilled with apertures to allow the passage of the electron



beams 6, 7 and 8. The electrodes are secured to one another by virtue of glass beads 29 into which are inserted metal parts 20 of said electrodes.

Figure 3 illustrates a mode of making an electrode G1 by deep-drawing according to the prior art. The electrode 25 consists of a planar face 40, drilled with apertures 44 and 43 for the passage of the electron beams, and a lateral skirt 41 substantially perpendicular to the planar part 40. Metal parts 42 project for insertion into the beads 29.

Figure 4 shows a section through the cathode/G1 assembly of Figure 3, in a plane parallel to the longitudinal axis Z of the tube, level with a lateral aperture 43 of G1.

The cathode 50 possesses means of support 55 and 56 inside G1, which are insulated from G1 by parts 52, made for example of ceramic. A filament 51 for heating the cathode is supplied electrically with the aid of conductors 53 linked to rigid terminals 54. The means of support 55 are welded to the skirt 41 of the electrode so as to secure the cathode to G1. The cathode or cathodes must be secured to the electrode G1 in such a way that the position of each cathode and its distance from the aperture in G1 corresponding thereto is very accurately fixed. If the shapes and dimensions of the electrode G1 do not correspond accurately to the nominal shapes and dimensions, it will not be possible for the welding of the cathode modules inside the dish to be performed accurately; this will, for example, result in the surface of the cathode 50 not being arranged perfectly facing the aperture 43, and result in the surface 40 bearing the apertures 43 and 44 being deformed by the mechanical stress exerted by the welding of the supports 55 because the dimensions do not correspond perfectly. These problems may be engendered by the difficulty of making the component G1 by deep-drawing, a method which, in mass production, does not allow the geometrical dimensions to be controlled with sufficient accuracy.

It is known moreover to make a dish-shaped G1 by welding a lateral skirt 41 onto a planar electrode surface 40. The surface of G1 containing the apertures 43 and 44 is a surface whose geometry is highly critical, inasmuch as it acts directly in the zone of formation of the electron beam or beams. The end part of the skirt should have a geometry which is defined perfectly so as to fit the surface of the planar part 40 to which it is intended to be welded, otherwise it will give

rise to mechanical stresses which will modify the nominal shapes and dimensions of G1. This is what generally occurs when the skirt 41 is an annular flange.

The present invention proposes a structure for making an electrode skirt allowing the skirt to be fitted, without mechanical stress, to any type of

5 substantially planar electrode.

Figure 5 shows an exploded view of an electrode G1 and cathode supports according to the invention. The electrode 25' possesses a substantially planar part 61 drilled with apertures to allow the passage of the electron beams emanating from the cathodes. The ends 63 are intended to be inserted into glass beads  
10 ensuring the rigidity of the gun and the relative positioning of its constituent electrodes. The cathode supports comprise a first skirt 56' surrounding the cathode and its filament, tabs 55' insulated from the skirt by a ceramic annulus 52, and rigid terminals 54 for receiving the filament supply wires. Two components 60 and 66 secured to one another, for example by welding, form a skirt which surrounds  
15 the cathode supports; the skirt 60, 66 may either surround a single cathode module or the assembly of three modules in the case of in-line guns for a color cathode-ray tube. The cathode supports and the skirt 60, 66 are secured, for example, by welding the tabs 55' to the skirt 60, 66; the assembly is then secured to the electrode G1 by welding the periphery 62 of the skirt 60, 66 to the electrode.

20 Figure 6 shows in perspective the electrode G1 made from three metal components: the substantially planar surface of part 61 drilled with apertures 44' and 43', and the two components of the skirt 60, 66 which are welded together at points 67 where their ends overlap; the geometry of the periphery 62 of 60, 66 is tailored in such a way as to come into stress-free contact with the substantially  
25 planar surface of part 61. The cathode modules are subsequently inserted into this assembly and welded to the skirt 60, 66.

By having a skirt 60, 66 consisting of at least two components 60 and 66, it is possible to achieve tailored positioning of the periphery 62 of the skirt 60, 66 intended to come into contact with the surface of the part 61, to which surface it  
30 will be welded. Regarding the Z axis as the principal axis of the tube, the X axis parallel to the direction of alignment of the apertures 43' and 44' and the Y axis perpendicular to X, the positioning of element 60 with respect to element 66 is achieved by a parting of the two components along the direction Y and a

positioning along Z tailored in such a way that the periphery 62 mates, without mechanical stress, with the surface of the part 61. The assembly is secured by welding at 67 the ends which therefore overlap at least partially.

The principle may be extended in a simple manner to a skirt consisting of 5 more than two separate components. In this way, it is possible to modify the geometry and the dimensions of the cathode and of its supports without having to modify the planar part 61, bearing the apertures 43' and 44'. This part 61 has very tight tolerances, owing to the fact that its geometry determines the electron optics of the gun in the zone of formation of the beam or beams; this results in a 10 saving when tailoring new cathode modules to an existing electrode G1 both in terms of design of the component and the tools for manufacturing the component.

In an advantageous embodiment, the two parts 60 and 66 are of strictly identical geometry and dimension. This makes it possible both to reduce the manufacturing costs and to obtain easier management of the stock of components, 15 the electrode G1 then consisting of only two different types of components.

The invention can be adapted to the making of any type of electrode comprising a plane part of highly critical geometry and a cylindrical part which extends along the Z direction for a considerable length, that is to say over a length equal to at least five times the thickness of the plane part, a structure which 20 makes deep-drawing unsuitable for application to electron gun electrodes.

ART 34 AMDT

CLAIMS

1 - An electron gun comprising at least one cathode (50) for emitting an electron beam, a dish-shaped control electrode G1 comprising a substantially planar part (61) provided with at least one aperture (43',44') for the passage of the electron beam emanating from the cathode and a skirt at least partially surrounding the cathode, and means for supporting the cathode so as to keep the latter at a specified distance from the electrode G1, wherein the control electrode G1 (25') comprises at least three separate metal components :

- a substantially planar component (61) drilled with apertures (43',44') which are intended to face each cathode (21,22),
- at least two metal components (60,66) forming the lateral skirt at least partially surrounding the cathode, the ends of the two components (60,66) overlap at least partially and are secured to one another at points (67) of the overlap.

2 - The electron gun according to claim 1 or 2, wherein the cathode supports are secured to the lateral skirt (60,66).

3 - A cathode-ray tube comprising an electron gun in accordance with any one of the preceding claims.

FIG.1

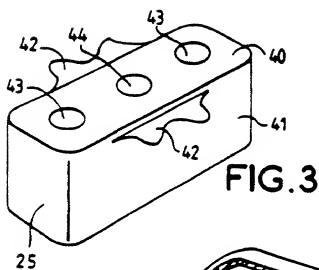
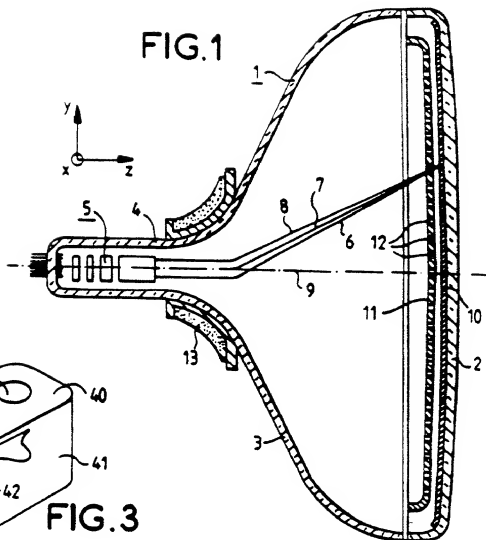
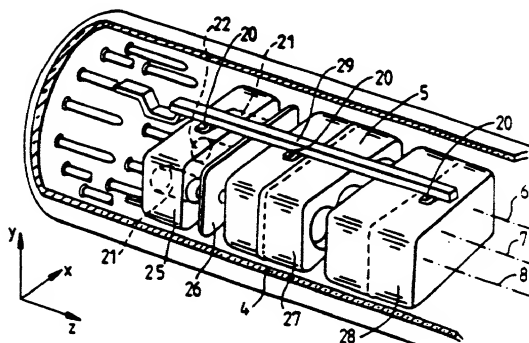


FIG.3

FIG.2



2/3

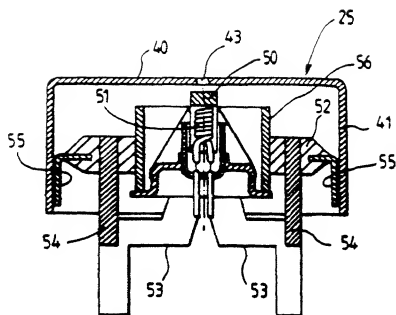


FIG. 4

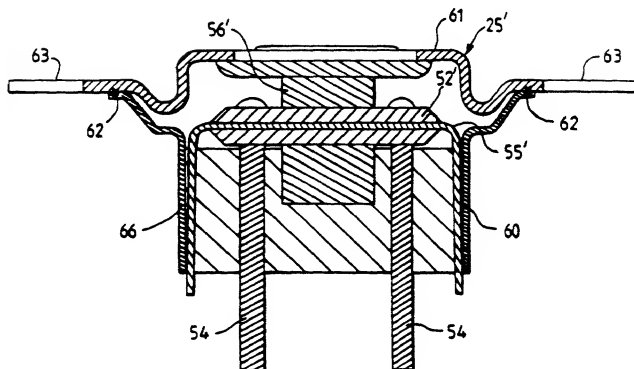


FIG. 5

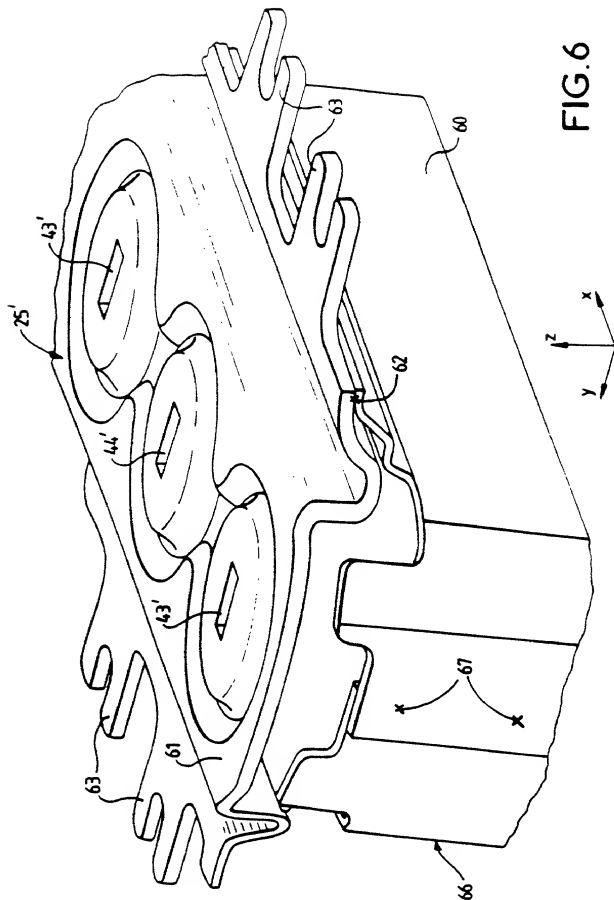


FIG. 6

Please type a plus sign (+) inside this box → ☐

PTO/SB/01 (10-00)  
Approved for use through 10/31/2002. OMB 0651-0032  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION</b> <b>(37 CFR 1.63)</b>  <input checked="" type="checkbox"/> Declaration Submitted with Initial Filing    OR <input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16(e)))	<b>Attorney Docket Number</b> RCA 89215
	<b>First Named Inventor</b> Arnaud Farizon et al.
	<b>COMPLETE IF KNOWN</b>
	<b>Application Number</b> /
	<b>Filing Date</b> 
	<b>Group Art Unit</b> 
	<b>Examiner Name</b> 

As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**ELECTRODE STRUCTURE FOR ELECTRON GUN**

the specification of which

(Title of the Invention)

☐ is attached hereto

OR

☒ was filed on

February 11, 2000

as United States Application Number or PCT International

Application Number **PCT/EP00/01131** and was amended on (MM/DD/YYYY) **April 19, 2001** (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above:

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuator-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign	Foreign Filing Date	Priority	Certified Copy Attached?
			YES NO
FR 9901628	February 11, 1999	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)

☐ Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



**DECLARATION — Utility or Design Patent Application**Direct all correspondence to: ☐ Customer Number  OR ☐ Correspondence address belowName Mr. Joseph S. Tripoli - Patent OperationsAddress THOMSON multimedia Licensing Inc.Address PO Box 5312City PrincetonState NJZIP 08540Country USTelephone 609-734-9763Fax 609-734-9700

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**NAME OF SOLE OR FIRST INVENTOR :**☐ A petition has been filed for this unsigned inventor

Given Name

(first and middle (if any))

ARNAUD

Family Name

or Surname FARIZON

Inventor's

Signature 

Date

07/09/2001Residence: City DijonFRX

State

Country FRCitizenship FR ✓

Mailing Address

Mailing Address 73, rue MongeCity Dijon

State

ZIP 21000Country FR**NAME OF SECOND INVENTOR:**☐ A petition has been filed for this unsigned inventor

Given Name

(first and middle (if any))

PHILIPPE

Family Name

or Surname ARNAUD

Inventor's

Signature 

Date

08/03/2002Residence: City Fontaine les DijonFRX

State

Country FR ✓Citizenship FR ✓

Mailing Address

Mailing Address 8, rue du DauphineCity Fontaine les Dijon

State

ZIP 21121Country FR☐ Additional inventors are being named on \_\_\_\_\_ supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.